Amendment to the Claims:

1.   (Currently Amended) A device [10] comprising:

a controller [21];

a memory [22] coupled to the controller; and

an input interface [20] ~~arranged to received~~ which receives at least two event signals [11],

~~wherein the controller is arranged to determine a global correlation for the at least two event signals over a first period of time, determine a local corrlation for the at least two event signals over a second period of time which is shorter than the first period of time, determine a deviation between a local correlation vector and a global correlation vector, determine an average deviation from the deviation and determine whether an artifact was detected in one of the at least two event signals.~~

wherein the controller determines:

a global correlation for the at least two event signals over a first period of time,

determines a local correlation for the at least two event signals over a second period of time which is shorter than the first period of time,

determine a correlation vector deviation between a local correlation vector and a global correlation vector,

determine an average deviation from the correlation vector deviation, and

determine whether an artifact was detected in one of the at least two event signals.

2.   (Currently Amended)   The device [10] according to Claim 1 wherein [the] said device is a patient monitoring system.

3.   (Currently Amended)   The device [10] according to Claim 2 wherein [the] said at least two event signals [11] are monitored patient ~~monitored~~ data signals.

4.   (Currently Amended)   ~~The device [10] according to Claim 3 further comprising~~ A patient monitoring system comprising:

3

a controller;

a memory coupled to the controller;

an input interface arranged to receive at least two event signals, the at least two event signals being patient monitored data signals,

wherein the controller is arranged to determine a global correlation for the at least two event signals over a first period of time, determine a local correlation for the at least two event signals over a second period of time which is shorter than the first period of time, determine a deviation between a local correlation vector and a global correlation vector, determine an average deviation from the deviation and determine whether an artifact was detected in one of the at least two event signals; and

an alarm indicator [40] coupled to the controller [21], the alarm indicator [40] being triggered if at least one of the event signals [11] crosses a preset threshold value and the controller [21] determines that no artifact was detected in the at least one event signal [11].

5.   (Currently Amended)   The device [10] according to Claim 1 further comprising a memory [22] for recording the at least ~~tow~~ two event signals [11].

6.   (Currently Amended)   The device [10] according to Claim 1, wherein [the] said device [is] includes a server forming part of a client-server network.

7. (Currently Amended)   A method [Fig. 2] for detecting a signal artifact in ~~an event signal,~~ event signals, the method comprising the steps of:

receiving at least two event signals;

determining a global correlation for the at least two event signal over a first period of time;

determining a local ~~eorrlation~~ correlation for the at least two event signals over a second period of time which is shorter than the first period of time;

determining a correlation vector deviation between a local correlation vector and a global correlation vector;

determining an average deviation from the correlation vector deviation; and

determining whether an artifact was detected in one of the at least two event signals based upon the average deviation.

8.   (Currently Amended) The method [Fig. 2] according to Claim 1 wherein

4

[the] said method is used with a patient monitoring system.

9.   (Currently Amended) The method [Fig. 2] according to Claim 8 wherein [the] said at least two event signals are monitored patient monitored data signals.

10. (Currently Amended) The method [Fig. 2] according to Claim 9 said method further comprising the step of: providing an alarm indication if at least one of the event signals crosses a preset threshold value and no artifact was detected in the at least one event signal.

providing an alarm indication in response to at least one of the event signals crossing a preset threshold value and no artifact was detected in the at least one event signal.

11. (Currently Amended) The method [Fig. 2] according to Claim 7, said method further comprising the step of: recording the at least two event signals.
recording the at least two event signals.

12. (Currently Amended) The method [Fig. 2] according to Claim 7, wherein [the] said method is used in a server forming part of a client-server network.

13. (Currently Amended)   A system [10] for detecting a signal artifact in an event signal [11], comprising:
means [20] for receiving at least two event signals [11];
means [21] for determining a global correlation for the at least two event signal over a first period of time;
means [21] for determining a local corrlation correlation for the at least two event signals over a second period of time which is shorter than the first period of time;
means [21] for determining a deviation between a local correlation vector and a global correlation vector;
means [21] for determining an average deviation from the deviation; and
means [21] for determining whether an artifact was detected in one of the at least two event signals based upon the average deviation.

5

14. (Currently Amended) The system [10] according to Claim 13 wherein [the] said system is a patient monitoring system.

15. (Currently Amended) The system [10] according to Claim 14 wherein [the] said at least two event signals [11] are patient monitored data signals.

16. (New) The method according to claim 13 further including:
    means for monitoring at least one physiological parameter of a patient and generating the at least two event signals, said at least two event signals conveying patient physiological parameter data.